METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

To: All Prospective Offerors

From: David Friedlander
Contract Specialist

Date: April 21, 2010

Subject: Amendment # 5, RFP 10-38; 800 MHz P25 System Upgrade

Acknowledge receipt of the amendment with your offer. Failure to do so may subject the prospective offerors to disqualification. This amendment forms part of the above-mentioned procurement and clarifies the previously issued documents.

Vendor Questions:

Do the 5.8 GHz RF combined radios come out after the wideband radios are installed?

No. That system will remain in service for multiple users and must stay in operation for the foreseeable future.

Will contractor be able to work at sites on weekends?

Not under normal circumstances. If necessary, it will require special authorization from Metro's Project Manager.

Re-sweep of the existing waveguide at lower 6 GHz will not give as high Return Loss as upper 6 in EW63 Elliptical. Knowing this, will Metro consider new radio hop BER and received signal level that meets path calculations justify re-use, providing no other sweep anomalies are seen?

Yes.

What is Metro's average and peak load on the A and B radio systems?

As of December 2009, System A utilization is 30% peak, 15% average loading, and System B utilization is 10% peak, 6% average load.

Will Metro provide a copy of any coverage maps in relation to their existing Radio Network?

No. Current coverage maps are not necessary or even relevant to design of a new system. The information already provided in the RFP along with site location and tower height should be sufficient for any vendor to complete their designs.

During the protest hearing it came to light that all 3 potential manufacturers would build in redundancy to any proposed system/solution for the A System. Because of this, we are requesting that Metro amend the RFP to exclude linking the A & B Systems. The end result of this link is unnecessary and would simply increase the cost to Metro as well as give an unnecessary advantage to Motorola, who is the only manufacturer who can provide this unnecessary linking. Specifically the interoperability and interfacing requirements in 3.1 would need to be revised and/or deleted to take into account that System A would be a stand-alone system.

Metro will not remove any reference for interfacing to existing equipment or systems from the RFP. If continued interoperability between old and new systems is possible, then Metro desires to review and consider those possibilities. The RFP clearly states, "A Proposer that is not capable of directly interfacing to the B System to the Upgrade system is encouraged to propose alternative interoperability solutions." If a proposer is unable to interface to the B System then that should be noted in the proposal and their solution should be included with the proposal. Metro intends to review each and every option available, whether proprietary or not, in order to make the most informed decision that is in Metro's best interest.

The language in 4.3.1: "New P25 infrastructure and microwave network equipment shall be integrated along with existing trunked simulcast infrastructure ***at 1 prime and 8 remote RF sites***." may implicitly limit the architecture of a proposed solution to only 1 prime site and not allow for a redundant master or prime site to be included in the solution. Is this Metro's intent and if it is not Metro's intent, will Metro revise the language to allow for alternative or unique architectures to be proposed?

The RFP refers to the existing configuration of the current system, and only implies that new equipment should be installed (and integrated if capable) along-side the existing infrastructure at existing sites. This is not is intended to limit any vendor's system design to a single prime site.

Because the RFP asks to upgrade the current 6 GHZ DS3 digital microwave system, we are requesting that Metro please send out additional information regarding the Microwave system - including schematic diagram, general MW link network layout, and presently used and available spare capacity (if any) of the links.

While the project is labeled an 'upgrade', the requirement in Section 3.5 of the RFP states, "The Proposer shall <u>replace</u> Metro's current 6GHz loop microwave system". The current system is a Tadiran CM6 28 DS1 in a loop configuration, using B8ZS encoding from the Premisys channel banks. 22 of the 28 DS1's are in use, with 3 each at Cane Ridge, Hermitage/Dupont, Virginia Avenue, Greer Road, Sullivan's Ridge, and Pasquo, and Joelton using 4. Each site except for Hermitage/Dupont has 1 spare T1 available. Metro expects any new system would have OC-3 capacity and should have sufficient capacity to carry all traffic for the P25 network as well as the existing network traffic.

Please re-define and clarify the exact Radio System Interoperability Requirements of RFP 10-38.

A number of questions regarding RFP 10-38 have been raised concerning system operation and interoperable communications between "A & B Systems". This additional information is intended to clarify Metro's position regarding this issue in order to assist prospective vendors in developing their proposals.

Metro realizes that any incumbent vendor has an advantage in regard to interfacing equipment into a proprietary system. Until infrastructure is designed and built to an open standard this will always be the case. A vendor that is unable to interface to Metro's existing infrastructure will be required to propose

an entirely new system to replace the existing, which will likely result in reduced interoperability between systems and subscribers.

The two primary areas of concern for interoperability during and after the project are:

- **'A Zone' system-wide interoperable talk groups**
- **New Console Connectivity to the 'B System'**

The 'A Zone'

Metro's primary means of interoperable communications for all subscribers is called the 'A Zone'. The 'A Zone' is a group of ten digital talk groups and the five 800MHz national interoperable channels that are programmed into the first 'zone' in every radio with access to Metro's systems. Those ten digital talk groups are divided between the 'A & B Systems' for redundancy, and are intended for Incident and Unified Command use per the NIMS plan. This provides ample room for incident and disaster communications and is now widely used for most events within the system's coverage area.

The 'A Zone' is specific to Metro's radio subscriber programming and should not be confused with discussion of the 'A System' infrastructure. Interoperable communications for Metro users is of the highest priority, and must be maintained in any system configuration, regardless of manufacturer.

The 'A Zone' must remain fully operational and available, without any type of human intervention required to activate it when needed. Metro will not specify the method that a vendor must use to provide this capability, only that all 'A Zone' talk groups are available to all users at all times on both systems, and does not rely on a console patch or any form of human interaction for activation, and are thus 'permanently patched'. A permanent gateway or hard patch using control point radios would be considered acceptable to accomplish this interoperability between systems. Metro will work with the selected vendor to provide the SmartNet radios required to ensure this capability remains for both systems if necessary.

New Console Connectivity to the 'B System'

Metro understands that choosing a system other than one manufactured by the incumbent will result in loss of cross system communication and most if not all features for individual subscribers and/or talk groups, as is provided now by the current SmartZone Manager and Gold Elite console configuration.

Metro has determined that in order to provide continued interoperable communications between 'A & B Systems', there are 40 talk groups on the B system that must be available resources to the operator positions in any new A system console configuration. The method of making these resources available is left to the proposer to determine.

Will Metro accept Lithium ion battery utilization on portable radios? LI-ON technology is a technology that provides increased utilization time at a lighter battery weight?

Metro would like to consider all battery and charger options available. Individual battery and charger information should be provided with each proposal, and should include price breakdowns for all chemistry, capacity, and charger options. Vendors are encouraged to provide detailed information regarding advantages and disadvantages of each battery type and for each charger model.

Will Metro consider an extension of the due date of this RFP from the May 10, 2010 deadline?

After further discussion, Metro has agreed to a thirty day extension for this RFP. The new due date is now, Friday, June 11, 2010 at 3PM.

Page 10-16 of the RFP includes a line item in the cost document for the cost to upgrade the B System to P25. Please clarify the specific updated Phase II Requirements being requested in the RFP.

The migration of 'A System' to Project 25 Phase I will add many valuable functions and features for Metro's public-safety responders. The Phase II standard is expected to be final about the same time Metro expects system acceptance for this project, if not sooner. Depending on economic and other factors, there is a good possibility that Metro and NES could begin a full migration of both systems to full Phase II compliance somewhere in the 3-5 year timeframe from the date of Phase I acceptance.

Current language regarding Phase II in the RFP states:

- **All new infrastructure and user equipment proposed shall be compatible with and be software upgradeable to P25 Phase II compliance.**
- **The Proposer shall certify that all infrastructure and user equipment supplied only require software upgrades to conform to Phase II prior to year 2017. If any hardware changes are required to provide Phase II functionality, those enhancements shall be provided at no additional cost.**
- **The Proposer shall define and explain the subscriber and infrastructure migration path from its P25 Phase I compliant offering to P25 Phase II compliant architecture.**
- **The Proposer shall describe how they plan on meeting this requirement, likely ship dates for Phase II compliant equipment, and anticipated upgrade costs (if required).**
- **Proposers shall provide a detailed explanation of the P25 Phase II impact on all subscriber radio equipment, specifically whether or not the radios proposed are currently P25 Phase II capable, or are upgradeable from Phase I to Phase II. If they are upgradeable to Phase II, the Proposer shall describe the process required to upgrade them to Phase II operation, whether it is a simple software update, requires modification to the radios, or required replacement of the radios.**
- **Additionally, Proposer's shall provide their coverage prediction maps for P25 Phase II technology.**

After considerable discussion, Metro has decided to expand the scope of RFP 10-38 to include additional requirements related to P25 Phase II operation. If migration of the 'A System' directly to Phase II can be accomplished within the scope of this project, that information should also be presented with the proposal.

In addition to the above, Metro will now require all proposers to include a detailed Phase II migration plan for the remaining B System infrastructure and subscribers. The plan should also include expected pricing for the final system migration with actual costs if available, or budgetary estimates if not.

<u>While the additional Phase II requirement will not be evaluated as part of the contract award, it may be included in the resulting contract.</u>